

PROPER CLEANING OF THE CAR NO SIMPLE MATTER

If Done Correctly Requires Time and Attention; Rub Dry After Washing

The proper cleaning of a motor car is one of the most important things connected with its ownership, and the longevity of the machine depends to a great extent upon the manner in which the cleaning is done.

Dirt is the natural enemy of all machinery. It is also the destroyer of fine, polished surfaces. Your car is composed of both. Keep them clean and you will extend their periods of service, according to a writer in Motor Print.

There are several kinds of dirt for the motor owner to cope with. The most obvious of these are mud, dust and blackened grease. Owing to the sensible way in which makers of modern motors protect and house the vital parts of their products, it is seldom that mud and dust accumulate upon these parts. These two gloomy twins put in their deadliest work on the body and running gear of the car. They devour paint, enamel and varnish. Luckily, however, it is simple to remove them—if you do it right.

There are two ways of removing dust and mud. One, the commoner method, is to use water. The other, which is newer and probably better, is to spray the dirt surface with a special preparation which softens the accumulations of dirt and is then wiped off with cheesecloth, taking the dirt with it.

If you use water, be sure to use it plentifully, especially when your car is caked with mud. Any attempt to remove mud before it is thoroughly saturated will damage the finish of your car. Take your hose and start

at the bottom, working up. In this way you will clean the running gear—usually the muddiest parts—first, and by working up you will avoid splashing muddy water on an already cleaned body.

Working with water, you will need a good sponge. Rock Island deep water sheep's wool sponges are the best and well worth their somewhat high price. Keep your sponge well saturated with clean water. You can do this by having a hose in your left hand, playing a gentle stream on the sponge all the time. Start sponging from the top downward, working along to the radiator and then going over the mudguards. When all the mud or dust is removed, give your car a second quick rinse over with the hose, and, if possible, a new sponge. Wipe Car Dry.

It is important that you do not allow the water to dry off naturally on the body-work. If you let this happen your car will soon begin to look like a leopard. As soon as you have finished washing take a piece of chamois and, starting at the highest point, following the path of the sponge, dry up all the moisture on the panels. If your engine is hot when you begin the drying process, start with the hood, to prevent the heat from drying it. Some men prefer cheesecloth rags to chamois for polishing and cleaning. These are good, but must be absolutely clean.

Advocates of the spray system of cleaning motor cars declare that by its use the dangers resulting from a wholesale deluge of water are avoided, and that their liquid preparations act as a preservative of the varnish and enamel, which water does not. The spray method is a great deal more convenient and simple. All

you have to do is to spray the car thoroughly and then wipe it with cheesecloth.

For all mechanical parts of the car garage men and chauffeurs are now using almost universally a kerosene or gasoline blower. In place of the old, impractical cloth. The blower is simply a nozzle attached to two rubber tubes. One of these tubes is attached to an air pump (hand or motor) or a compressed air tank. The other is placed into a can of kerosene. By turning on the air pressure the nozzle is made to throw a strong jet of kerosene into all those narrow corners and crevices which are usually so hard to reach. There are several types of this blower, most of them costing in the neighborhood of \$2.

Caring for Brass

Brass and nickel fittings, which are supposed to be decorative but which are usually far from it by reason of neglect, should be polished regularly with chamois and one of the many preparations now on the market. You should remember, in applying these preparations, that they are intended for metal only—and that they are liable to injure varnish and woodwork.

The upholstery of your car should be brushed daily with a good stiff brush, and when feasible a vacuum cleaner should be run over it and down into the cushions, which have a way of absorbing quantities of dust. Wipe the leather rain top with a damp cloth, but be sure to dry it thoroughly afterward before folding it down again, for if even the slightest bit of moisture remains on, you will find it covered with a mildew beard when next you put it up. Cloth tops, of mohair and the many compositions, should be thoroughly brushed and occasionally beaten. The windows may be treated just as ordinary house windows are.

Slip covers, which if not kept clean look worse than old upholstery, should receive your frequent and earnest attention. Remove spots on them with gasoline and beat them from time to time, or treat them to a

vacuum cleaner, and they will add to the appearance of your car. Neglect them and they will detract from it. Dry the Springs.

Some owners who do their own cleaning have found it convenient to do only the conspicuous parts, such as hood, body and the tops of the mudguards, leaving the wheels and variable parts to be attended to on special occasions by a regular garage man. If you do this it is well to remember that the rules applying to thorough cleanings also apply to partial ones. Do not allow any water to dry naturally and do not touch the body with greasy rags. Be careful also to dry the springs after each washing. Water left on them will rust the leaves.

BAKER MAKES ANOTHER RECORD AUTO DASH

E. G. (Cannonball) Baker, who recently crossed the continent on United States "nobby" trends in seven days, 11 hours and 51 minutes, has added still another record to his long list. Baker covered the distance from Detroit to Indianapolis in an automobile equipped with United States royal cord tires in seven hours and 10 minutes—about 45 miles per hour. The best previous record for the 315-mile run was eight hours and 41 minutes, or nearly 20 per cent slower. Baker says that the amazing thing about the entire run, and the feature that most impressed itself on his mind, is the fact that he had no tire trouble whatsoever during the whole trip—and what is more remarkable, that the tires showed absolutely no wear at all, and after being washed could actually be returned to stock.

Judge Albert D. Norton of St. Louis, was named to take charge of the bureau of the Western Democratic campaign.

Private William Mariner, an ex-bugler who won the Victoria Cross, was killed in action in the recent British advance.

CARELESSNESS IS CAUSE OF LARGE REPAIR BILLS

Knowledge of Their Cars Would Save Motorists Money Say Garage Men

It is deplorable but true that for each motor owner who really understands his car in its multiple details there are dozens ignorant of everything save the control. They know how to start it and stop it. But they know almost nothing about the proper care of the machine. Only the other day, for instance, a dealer told of a man who had bought a powerful car and who was totally ignorant of the fact that oil and grease played important parts in its running. When he was told in a few days later with a badly damaged engine he said he had thought that little things such as lubrication were arranged before the car left the factory, and that all he had to do was to keep the tank full of gasoline. Repair men state that if private drivers had more real knowledge of their cars, and applied it, more than three-fourths of the repair business would fall away.

Of motor car abuses, improper lubrication is probably the most common, according to Motor Print. Which is a little strange, considering that keeping a car oiled and greased is one of the easiest of attentions it requires. The motor is a mechanism which runs at high speed and high temperature. It contains many rubbing surfaces. In order to keep these surfaces from burning each other, it is necessary to separate them by a film of oil.

Oiling Problems. If the lubricating system is in good condition and the oil of the right consistency, this protective film will be automatically provided. This applies to all the surfaces, such as pistons, cylinder walls, crankshafts, rod pins, bearings, camshaft bearings, push rods, push rod guides, and even to the gears. The teeth of the meshing gears, of course, are not spaced to rub against each other, but to have simply a rolling contact. However, it is impossible to attain this degree of perfection in practice and a certain amount of rubbing does take place, due to the fact that the teeth cannot be scientifically correct.

The severest test of a lubricating oil is found in lubricating the pistons and cylinder walls, especially at the upper end of the stroke. At the moment of combustion the temperature is above 3000 degrees Fahrenheit, and both pistons and cylinder walls are exceedingly hot; therefore it is necessary to use an oil which will stand this temperature; neither vaporizing nor burning.

If the oil is too thin or has a tendency to vaporize or burn, these high surfaces will be improperly lubricated, increased friction will result and finally the film of oil may disappear entirely, with the result that rubbing between the two surfaces will occur and the parts shortly will be ruined. There also is a possibility, when the piston becomes heated that it will expand until it fills the cylinder bore and becomes seized.

Selecting Lubricant. If the oil is not clean, if it contains grit or dirt of any sort, it will rapidly wear away the metal parts, the grit acting as an abrasive. Oil is liable to contain not only grit and free carbon, but also a certain amount of gasoline, and in many cases, water. The gasoline thins the oil, making it incapable of resisting the pressure between the rubbing surfaces, and wear increases. As many men neglect to fill the oil reservoir often enough, it is a good plan to make a rule of doing it every day, so that there will be very little chance of the car being run for several days without adding oil.

The moment the sighted shows that the oil is not circulating fast enough the trouble should be found before the car is run any further. If this is not done there is danger of the surface going dry and becoming burned out; and scored bearings will be the result. Keep your oil tank filled and be sure the lubricating system is working properly. If you use too little oil your car will suffer; if too much you are liable to "smoke" and lay yourself open, in the cities, at least, to arrest.

Parts Neglected. The greatest abuse of the lubricating system, however, does not occur in the motor, but in the other parts of the car. The majority of owners are educated to lubricate the motor, but they often leave the rest of the car until it actually complains. A great many drivers consider that so long as the car lasts it will continue to run and that it does not need attention of any sort whatsoever. Examination of the cars in garages in various parts of the country shows that grease cups, gear boxes and differentials lack attention. In particular, of course, is this true of gear boxes, because they are inaccessible and it is a disagreeable task to screw them down.

It is better to use too much grease than too little. Many of the parts will apparently run indefinitely without it, and many owners will form the impression that the grease cups were put on merely for ornament, but they will pay for their neglect in the end, because the inattention will result in the wearing out of these parts faster than they should. The spring bolts, steering gear and connections soon become loose and rattle disagreeably when they are not properly supplied with grease. On the other hand, when they are well lubricated they should last almost indefinitely.

Wheel Bearings Need Attention. When the gear box is tight it is rarely necessary to add grease, but it is not safe to assume that the grease will last forever, and a good rule is to inspect it once a month, for sometimes the grease disappears more rapidly, due to a small, unnoticed leak or because the grease is of poor quality. When the grease becomes very low it is usually noticed by a

noise in the gear box, while, on the other hand, the gear box may hum if too much lubrication is used.

The wheel bearings should be greased every month or so, for, although they may run for a year without complaining, their life will be considerably shortened. It is better and more satisfactory to use plenty of grease on all these parts. The fact that the steering gear uses very little grease does not mean that it should be neglected, and the grease cup that is located on the housing should be frequently filled and screwed down.

Magneto and starting and lighting generator bearings are invariably of the ball type and require very little lubrication. With the former it is sufficient to use two or three drops of light oil, while the latter may require grease or oil. The fact that the oil holes may be somewhat difficult to find is no reason for neglect, and worn or badly injured parts will result if they are not lubricated.

To run the motor with a lack of oil or with a cooling system cut out of commission is absolutely suicidal, and the effect in both cases is usually the same—scored pistons and cylinders. It is not safe to operate the car with the water boiling, and as soon as the boiling point is reached the cause of the trouble should be found. If the circulation is stopped, the car, in no case, should be run, nor should it be when the water is very low down in the radiator. This is objectionable in pump systems, because a lesser quantity of water makes it impossible to keep the motor cool, and in the thermo-siphon system there is the added objection that the circulation practically stops as soon as the water drops below the upper connection to the radiator.

Lack of oil, and cooling difficulties, are usually indicated by knocks or missing, and at the same time an appreciable loss of power. These danger signals must not be overlooked; in fact, a knock of any sort is usually serious and a thorough investigation of the car should be made before an attempt is made to proceed.

Only the best lubricants should be purchased, and unless you are a specialist on oil and greases it is best to go to the man from whom you purchased your car or to some repair man whom you know is capable of giving you a competent opinion of what lubricants to use. Not all garage or repair men are qualified to do this.

PUT OLD TIRES ON REAR WHEELS

Do motorists realize the danger of using worn and weakened tires on the front wheels of their machines? This question was recently asked, and pretty well answered by C. M. Spreckels, secretary of the Savage Tire Company of San Diego.

Mr. Spreckels has made a careful study of tire construction since his connection with the Savage Tire Company. He has also had years of experience as a driver and user of automobiles, so his opinion should have considerable weight. The common practice is, to place new tires on the rear wheels, then after they have gone a few thousand miles and begin to show signs of wear, to move them to the front wheels. Almost without exception the newest and strongest tires are found on the rear wheels of machines.

Any motorist knows the danger of a blowout on the front wheel of a car. Very little trouble is caused by a blowout on a rear wheel and there is practically no danger at all from such an occurrence. Many cars have gone over embankments and the lives of many motorists and pedestrians have been jeopardized by the blowing out of tires on the front wheels of cars.

If the car is being driven at any speed when such an accident occurs, the chances are that the driver will lose control of it and serious and frequently fatal accidents follow.

Mr. Spreckels went on to say that it is well understood that motorists can obtain a little more mileage by putting weakened tires on the front wheels of their cars, but that they are paying dearly for this mileage, when they consider that they are flirting with serious danger by following such a practice.

His advice is to use the tires first on the front wheels until they show signs of wear, then transfer them to the rear wheels and have them finish their lives there, where if they blow out, no serious trouble will be caused.

SUBMARINE BODY IS LAST WORD IN AUTOS

An unusual amount of ingenuity has been exercised in designing a special submarine body, which has made its appearance recently on the streets of New York. It was planned by J. H. Clark of the Mitchell sales force in New York, and several bodies of this type, mounted on Mitchell mid-season model chassis, have found ready sale among the younger New York set.

The body, wire wheels, radiator and hood are finished in white enamel and the fenders and running gear are finished to match the upholstery. The body is described as ultra-aquatic, the smooth sides coming to a point in the rear, a plank deck of matched mahogany adding to the nautical appearance.

The carrying capacity is six persons, the single door being located on the starboard side. The right front cushion tilts up and affords ready access to the tonneau. The top is of special design, similar to the yacht deck top.

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Aitken Wins on Goodyear Cords

Peugeot Driver Captures 300-Mile Cincinnati Sweepstakes at Speed of 97.06 Miles an Hour

Three hundred miles—over a new course—at the scorching speed of 97.06 miles an hour—here is a test of tire stamina leaving no element of quality or construction untried!

Yet Goodyear Cords stood up under this grinding, wearing, punishing pace—stood up under it to a victorious finish.

They carried Aitken and his Peugeot straight to first honors.

Aitken's Labor Day victory at Cincinnati, supported by the series of remarkable racing records achieved with the aid of Goodyear Cords in the past few months, offers additional proof of the superior stoutness, speediness and endurance of these tires.

The same stoutness, speediness and endurance are advantages experienced by Goodyear Cord users in everyday motoring.

They are the qualities that led to the adoption of Goodyear Cord Tires as standard equipment on the Franklin, the Packard Twin-Six, the Locomobile, the Peerless, the White, the Haynes Twelve, the Stutz and the MacFarland.

They are the qualities that make these tires higher-priced—and better.

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